

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of forming a polymer, comprising:

polymerizing a bicontinuous microemulsion comprising a first continuous phase comprising water, a second continuous phase comprising a monomer, and a surfactant copolymerizable with said monomer, to form a porous polymer comprising

a matrix portion formed from said second phase and comprising a polymer matrix defining interconnected pores filled by said water, and

a water portion formed from said first phase and comprising water in interconnected pores defined by said matrix portion,

wherein said microemulsion further comprises a drug dispersed in at least said second phase such that, when said porous polymer is formed, said drug is initially dispersed in at least said polymer matrix portion and is releasable therefrom from said matrix portion into said pores when said porous polymer is in contact with a liquid.

2. (original) The method of claim 1, wherein said drug is an ophthalmic drug.

3. (previously presented) The method of claim 1, wherein said pores have a pore diameter of about 10 to about 100 nm.

4. (previously presented) The method of claim 1, wherein the proportion of said water is from about 15% to about 50% by weight, the proportion of said monomer is from about 5% to about 40% by weight, and the proportion of said surfactant is from about 10% to about 50% by weight.

5. (previously presented) The method of claim 1, wherein said microemulsion further comprises a cross-linker.

6. (currently amended) The method of claim 5 wherein the cross-linker is ethylene glycol dimethacrylate (EGDMA).

7. (previously presented) The method of claim 1, wherein said microemulsion further comprises a polymerization initiator.

8. (original) The method of claim 7, wherein said polymerization initiator is a photo-initiator.

9. (currently amended) The method of claim 8 wherein the photo-initiator is 2,2-dimethoxy-2-phenyl acetophenone (DMPA).

10. (original) The method of claim 9, wherein said polymerizing comprises subjecting said microemulsion to ultraviolet radiation.

11. (previously presented) The method of claim 1, wherein said monomer is ethylenically unsaturated.

12. (original) The method of claim 11, wherein said monomer is methyl methacrylate (MMA), 2-hydroxyethyl methacrylate (HEMA), or a combination of MMA and HEMA.

13. (previously presented) The method of claim 1, wherein said surfactant is a non-ionic surfactant.

14. (previously presented) The method of claim 1, wherein said surfactant is a poly(ethylene oxide)-macromonomer.

15. (currently amended) The method of claim 14 wherein the surfactant is ω -methoxy poly(ethylene oxide)₄₀ undecyl α -methacrylate macromonomer (C₁-PEO-C₁₁-MA-40).

16. (withdrawn) A polymer formed in accordance with the method of claim 1.

17. (withdrawn) A polymer comprising:

a polymer matrix defining interconnected pores distributed throughout said polymer; and

a drug dispersed in at least said polymer matrix, said drug being releasable therefrom when said polymer is in contact with a liquid.

18. (withdrawn) The polymer of claim 17, wherein said pores have a pore diameter of about 10 to about 100 nm.

19. (withdrawn) The polymer of claim 17, wherein said drug is an ophthalmic drug.

20. (withdrawn) A drug delivery device comprising:

a transparent and porous polymer comprising a polymer matrix defining interconnected pores; and

an ophthalmic drug dispersed in at least said polymer matrix,

wherein said ophthalmic drug is releasable from said drug delivery device when said drug delivery device is in contact with a liquid.

21. (withdrawn) The drug delivery device of claim 20, which is a contact lens or an artificial cornea.

22. (withdrawn) The drug delivery device of claim 20, wherein said pores have a pore diameter of about 10 to about 100 nm.

23. (withdrawn) A method of delivering an ophthalmic drug, comprising:

loading said ophthalmic drug in an ophthalmic device comprising a transparent and porous polymer, said polymer comprising a polymer matrix defining interconnected pores, said ophthalmic drug dispersed in at least said polymer matrix, wherein said ophthalmic drug is releasable from said ophthalmic device when said ophthalmic device is in contact with a liquid.

24. (withdrawn) The method of claim 23, wherein said ophthalmic device is a contact lens or an artificial cornea.